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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,745	06/12/2001	Barry K. Speronello		6496

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EXAMINER

NGUYEN, NGOC YEN M

ART UNIT PAPER NUMBER

1754

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/879,745	<b>Applicant(s)</b> SPERONELLO ET AL.	
	<b>Examiner</b> Ngoc-Yen M. Nguyen	<b>Art Unit</b> 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,294,108. Although the conflicting claims are not identical, they are not patentably distinct from each other because some of species in the Markush group as required in the instant application are specifically disclosed in the claims of U.S. Patent '108, such as hydrous clays, calcined clays, acidified clays and acidified calcined clays.

Claims 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or suggest a composition for generating chlorine dioxide which includes clays or metakolin microspheres.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wellinghoff (5,631,300).

Wellinghoff '300 discloses a process for preparing a biocidal composition that requires few reactions or physical processes to provide sustained release of chlorine dioxide (note column 2, lines 33-35). The sustained release of chlorine dioxide can be generated from a composite containing chlorite anions when the composite is exposed to moisture (note column 3, lines 17-20).

The composite comprised a hydrophilic material and a hydrophobic material. The composite may be, for example, a dispersion composed of hydrophilic and hydrophobic phases, or a mechanical combination of the hydrophilic and hydrophobic materials, such as powders or adjacent films (note column 3, lines 20-29).

The hydrophobic material of the composite can be composed entirely of an acid releasing agent or can comprise the acid releasing agent in combination with a diluent and/or a plasticizer (note column 3, lines 44-57). Suitable acid releasing agents include acyl halides, dialkyl phosphates, etc. (note first paragraph in column 9) which are considered as salts as required by the instant claim 25. Acid anhydrides are preferred

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acid releasing agents and include organic acid anhydrides. Preferred mixed inorganic acid anhydrides contain a phosphorus-oxygen-silicon bond (this is an inorganic material as required by the instant claim 7) (note paragraph bridging columns 9-10). Also, when the hydrophobic material is composed entirely of an acid releasing agent, such as carboxylic acids, phosphoric acid (note column 3, lines 44-45 and column 9, lines 1-2), such acids would be in solid form since Wellinghoff '300 discloses that composite which contains the hydrophobic and the hydrophilic materials can be formulated as a powder (note column 10, lines 31-34).

The hydrophilic material of the composite can be composed entirely of a source of chlorite anions or can comprise a chlorite anion source in combination with another hydrophilic material (note column 3, lines 58-61). Suitable chlorite sources that can be incorporated into the composite include alkali metal chlorites such as sodium chlorite or potassium chlorite, alkaline earth metal chlorites such as calcium chlorite among others (note column 4, lines 43-50).

A moisture scavenger, such as sodium sulfate, calcium sulfate, silica gel, alumina, zeolites, and calcium chloride can be added to the composite to prevent premature hydrolysis of the acid releasing agent (note column 10, lines 22-25). When zeolites are used as moisture scavenger, the zeolites can also be considered as the second material.

It should be noted that the instant claims do not exclude the presence of the hydrophobic material in the composition, note the "consisting essentially" language, because the composition of Wellinghoff is still suitable to produce chlorine dioxide (note

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abstract). It is noted that the claimed dry solid hydrophilic material is selected from "a group consisting of" recited species, however, the composition has the "consisting essentially" language. It should be noted that in Wellinghoff '300, the hydrophobic material of the composite can be composed entirely of an acid releasing agent (note column 3, lines 44-45) and the acid releasing agent can be maleic anhydride, succinic anhydride (note paragraph bridging columns 9-10, especially column 9, lines 65-66 and column 10, lines 5-7). These exact compounds, however, are disclosed in the instant specification as suitable "dry solid hydrophilic material" (note paragraph bridging pages 7-8 of Applicants' specification, especially page 8, lines 10-11). Thus, it appears that "hydrophobic" and "hydrophilic" can be relative terms, then, even though Wellinghoff '300 refers to the acid releasing agent as a "hydrophobic" material, but such material still can be as "hydrophilic", to the extent required, as those recited in the instant claims.

The number of combinations disclosed in Wellinghoff is too large for anticipation.

It would have been obvious to one skilled in the art to select any combination among the specifically disclosed compounds, *Merck & Co. Inc. v. Biocraft Laboratory Inc.* 10 USPQ 1846.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (571) 272-1356. The examiner is currently on Part time schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stan Silverman can be reached on (571) 272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed (571) 272-1700.



Ngoc-Yen M. Nguyen  
Primary Examiner  
Art Unit 1754

nmn  
August 23, 2004